

REMARKS

Claims 1, 2, and 4 to 7 are in the application. Claim 3 is cancelled.

As a result of the foregoing Amendment, the claims have been amended to remove the language considered indefinite by the Examiner.

In addition, the specification has been amended to provide appropriate headings and to remove references to the claims.

Accordingly, it is submitted that the rejection of the claims under 35 U.S.C. 112, second paragraph, should be withdrawn.

Reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. 102(b) as being anticipated by the Barsotti, are respectfully requested.

Applicants respectfully submit that the claims as amended are not anticipated by the reference to Barsotti.

The present invention is directed to a plastic container in which the inner and/or outer surface is provided with a coating that acts as a barrier against oxygen, wherein the coating has properties adapted to those of the container contents with respect to mechanical strength, thermal expansion, and chemical resistance against the container contents, wherein the coating materials used for the coating are based on modern epoxy resins or amine adducts.

In the reference to Barsotti, which Applicants agree is the closest reference, a plastic container especially for carbonated alcoholic beverages is disclosed, wherein a two-layer laminate is applied on the outer and/or inner surface of the container for reducing the permeability to oxygen and carbon dioxide. The laminate layer is composed of an inner layer with a layer thickness in the range of 20 μm of a binder composed of a water-soluble or dispersible in water with a content of 10 to 90 percent by weight of a plate-shaped mineral, such as the clay mineral montmorillonite, onto which then is applied an outer second polymer layer in the form of an organic solution having a layer thickness of $\leq 12 \mu\text{m}$.

Consequently, the coating disclosed by this reference is not only composed of one layer as in the invention, but of two layers of different compositions which are placed one on top of the other. The second feature of the present invention, according to which the layer is adapted to the properties of the container material, is also not found in the reference, because the inner layer based on the clay mineral montmorillonite, which is in direct contact with the container material, has properties which are certainly very far removed from the properties of a plastic container.

The reference is silent with respect to an indication concerning the components used for the outer layer which would correspond to the epoxy resins or amine adducts recited in claim 1 of the present application, and whether the outer layer is largely adapted to the contents of the container, as is the case in the present invention.

Another difference between the present invention as claimed and the reference is the fact that the two-layer laminate described by Barsotti has a layer thickness of up to 30 μm , which is significantly greater than the thickness of the layer in accordance with the present invention.

As a result of the foregoing Amendment, the specific feature of the thickness of the layer was moved from claim 3 to claim 1 of the present application. It is submitted that the features recited in claim 1 of the present application distinguish over the art of record.

The reference to Touhsaent, which was also cited against the claims of the present application, discloses metallized multiple-layer foils which are used for packaging food stuffs or non-food stuffs or for forming bags, boxes, or purse-like containers which contain such products.

The metallized multiple-layer foils consist of a foil substrate composed of several individual layers of different compositions, wherein two additional layers are applied to each outer surface, and wherein one of these layers is a metallized layer. The outer surface located opposite the metallized layer is coated with a primer layer and a polymer coating, for example, a sealable coating, is then applied onto the primer layer. The reference mentions as examples for known suitable primer agents titanates, poly (ethyleneimine), and reaction products of an epoxy resin and an aminoethylated vinyl polymer, as mentioned in column 7, lines 41 to 44. The

thicknesses of the layers applied on the foil substrate are approximately in the range of between 0.5 to 5 μm ; the metalized layer produced by a metal deposit has a thickness of about 5 to 200 nm.

In contrast to the invention, the reference to Touhsaent only describes the use of several layers of foils and not the single coating of plastic containers of styrene and/or polyolefins. The reference does not mention anything which would indicate which of the coated outer surfaces of the foil is in contact with the contents to be stored and whether the properties of the material of the coating is adapted to the properties of the contents of the container. The reference to Touhsaent also does not mention whether a single barrier layer could be suitable.

In accordance with the present invention, the following features are required of the coating applied to the plastic material.

a) the coating must have a barrier capability relative to oxygen;

b) the mechanical, chemical, and thermal properties must be adapted to the corresponding properties of the container material without significantly changing the material of the container;

c) possibly the adaptation of the mechanical, chemical, and thermal properties to the corresponding properties of the container material;

d) a thickness of the layer of the finished coating is variable from about 0.003 μm to 0.03 μm , preferably 0.007 μm to 0.01 μm , as recited in original claim 6.

While the individual features according to items a, b, or c, recited above may be known in the art by themselves, it is submitted that it certainly required an inventive step in order to obtain a plastic container having the combination of features recited in claim 1 which are novel as compared to the prior art; the novel feature is the fact that only one coating layer is provided. This inventive step is not rendered obvious even by the combination of references relied on by the Examiner. This is because of the clear differences between the prior art and the claims as set forth in the application.

It is submitted that the differences between the present invention and the references relied on by the Examiner are such that it is clear that the claims of the present application are patentable.

The feature of the specific thickness of the coating layer has been added to claim 1 in order to clearly distinguish over the references relied on by the Examiner.

Therefore, it is submitted that the claims presently in the application are in condition for allowance.

Reconsideration and allowance of the present application is respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on November 2, 2007.

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